

ELASTOSIL[®] RT 723 A/B



Thermally Curing Silicone Rubber (RTV-2)

ELASTOSIL[®] RT 723 A/B is a non-slump, addition-curing, 2-part silicone rubber for CIPG and FIPG applications. The product vulcanizes at elevated temperature to yield a permanently flexible silicone rubber with very good mechanical properties and very low compression set.

Cured ELASTOSIL[®] RT 723 A/B shows very good adhesion to many substrates and long-term stability against weathering, moisture and UV light. The cured silicone rubber may continuously be exposed to constantly changing climatic conditions, UV radiation and temperatures as high as 230 °C (446 °F) without damage.

Properties

Uncured:

- 1 : 1 mixing ratio
- Non-slump paste
- Fast curing at moderate temperature levels

Cured:

- Medium hardness
- Very low compression set
- Designed for CIPG applications, but also suitable for FIPG (sealing & bonding)
- Good resistance to fluids, lubricants, cleaning agents, alcohols and aqueous media.
- Electrically insulating
- Light & weathering resistant
- Recommended service temperature range: -50 °C to +230 °C

Specific features

- Addition Curing
- Fast curing under heat
- Heat resistant
- Media resistant
- Two-component
- UV stable

Technical data

Properties Uncured

Property	Condition	A	B	Method
Color	-	Translucent	Black	-
Density	23 °C	1.11 g/cm ³	1.04 g/cm ³	DIN EN ISO 1183-1 A
Viscosity, dynamic	25 °C 0.5 1/s	600000 mPa·s	550000 mPa·s	DIN EN ISO 3219
Viscosity, dynamic	25 °C 25 1/s	200000 mPa·s	60000 mPa·s	DIN EN ISO 3219
Component containing the platinum catalyst	-	A	-	-

These figures are only intended as a guide and should not be used in preparing specifications.

Catalyzed

Property	Condition	Value	Method
Mix ratio	-	1 : 1	A : B
Pot Life	23 °C 50 % r.h	24 h	-
Kick-off temperature	-	88 °C	ISO 6502
t90 value	100 °C	50 s	ISO 6502

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Properties Cured

Mixing ratio A:B = 1:1 (by weight); curing conditions: 5 min. at 165 °C in a circulating air oven, 2 mm sheet, pressed, no postcuring.

Property	Condition	Value	Method
Color	-	Black	-
Density (in water)	23 °C	1.09 g/cm ³	DIN EN ISO 1183-1 A
Tear strength	-	13.8 N/mm	ASTM D 624 B
Hardness Shore A	-	38	DIN ISO 48-4
Tensile strength	-	5.9 N/mm ²	ISO 37 type 1
Elongation at break	-	500 %	ISO 37 type 1
Compression Set	22 h 175 °C	15 %	DIN ISO 815-1 type B method A

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All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Automotive, Aerospace & Railway
- Cured-In-Place-Gaskets (Dry Type)
- Formed-In-Place-Gaskets (Wet Type)
- Machine Building

Application details

- General-purpose CIPG grade, in particular for applications with occasional contact to liquids
- General-purpose FIPG grade for technical applications
- Typical fields of application: automotive, mechanical engineering

Processing

Important!

Only A and B components with the same batch number should be processed together!

Surface preparation:

All surfaces must be clean and free of contaminants that will inhibit the cure of ELASTOSIL® RT 723 A/B. Examples of inhibiting contaminants are sulfur containing materials, plasticizers, urethanes, amine containing materials and organometallic compounds – especially organotin compounds. If a substrate's ability to inhibit cure is unknown, a small scale test should be run to determine compatibility.

When a substrate is known to pick up ambient moisture, e.g. as technical polyamide grades usually do, it is recommended to reduce the level of absorbed humidity by drying the substrate at 120 °C prior use. This minimizes the risk of bubble formation at the silicone/substrate interface during the curing process.

Mixing:

Caution ! Component A of ELASTOSIL® RT 723 A/B contains the platinum catalyst, component B comprises the crosslinker. Since even traces of platinum catalyst may cause gelling of component B, all tools (e. g. spatula, stirrers, mixing cups etc.) used for handling either component A or the A/B mix must not come into contact with component B by mistake.

The two components should be thoroughly mixed at a 1 : 1 ratio by weight or volume, preferably by automatic metering lines equipped with static or dynamic mixing devices.

Curing:

The curing time of addition-curing silicone rubber is highly dependent on temperature, size and heat sink properties of the respective substrates or of the assembly parts to be bonded, respectively. In order to secure a quick build-up of adhesion to the substrates, ELASTOSIL® RT 723 A/B is vulcanized between 120 °C and 200 °C usually. Typical curing temperatures and resulting curing times are given in adjacent table.

Detailed information about processing 2-part addition-curing silicones is given in our brochure "ROOM TEMPERATURE VULCANIZING (RTV) SILICONES - MATERIAL AND PROCESSING GUIDELINES". We recommend running preliminary tests to optimize conditions for the particular application.

Removal:

If removal of the silicone from machines or dispensing equipment is necessary, white spirit or similar nonpolar solvents are recommended. However, cleaning ideally should take place before the silicone is fully vulcanized. Cured silicone rubber needs to be rubbed off or removed mechanically, if necessary in combination with a swelling agent (solvent) or a chemical silicone remover.

Temperature	Curing time
125 °C	10 min.
150 °C	8 min.
175 °C	5 min.
200 °C	2-3 min.

Packaging and storage

Storage

Store in a dry and cool place.

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

QR Code ELASTOSIL® RT 723 A/B



For technical, quality or product safety questions, please contact:

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